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SEQUENCE LISTING

<110> XENOME LTD
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<120> NOVEL CHI-CONOTOXIN PEPTIDES (-II)

<130> 12373580/JGC

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<151> 2002-12-02

<160> 215

<170> PatentIn version 3.2

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<223> Xaa is 4-hydroxyproline

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<223> Xaa is independently absent or represent any amino acid residue except Cys

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Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys
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<223> Xaa is selected from Gly, Asp, Lys, Arg, Ala, Nle, Ser or Phe

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<222> (4)..(4)

<223> Xaa is selected from Val, Leu, Nle, Ile, Thr, Ala, Asn, Trp, Phe and Abu

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<223> Xaa are independently absent or represent any amino acid residue except Cys

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Xaa Xaa Xaa Xaa Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys

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 <223> Xaa is selected from Arg, DArg, Asn, DAsn, Lys, Thr, DLys,
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 L-citrulline, Val and a deletion

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Trp Arg Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
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Tyr	Phe	Arg	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Xaa	Cys
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<400> 31

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Xaa Gly Xaa Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
 1 5 10

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<400> 47

Asn Gly Xaa Cys Cys Gly Xaa Lys Xaa Cys His Xaa Cys
1 5 10

<210> 48
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<400> 48

Xaa Gly Xaa Cys Cys Gly Xaa Lys Xaa Cys His Xaa Cys
 1 5 10

<210> 49
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<400> 49

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<210> 50
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<400> 50

Tyr Asn Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 51
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 <223> Xaa is O-methyl-L-tyrosine

<220>
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<400> 51

Xaa Gly Leu Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
 1 5 10

<210> 52
 <211> 13
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 <400> 52

Xaa Gly Xaa Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
 1 5 10

<210> 53
 <211> 14
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<400> 53

Trp Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
 1 5 10

<210> 54
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<400> 54

Trp Arg Gly Val Cys Cys Gly Tyr Lys Leu Cys His Ala Cys
 1 5 10

<210> 55
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<223> Xaa is O-methyl-L-tyrosine

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<223> Xaa is 4-hydroxyproline

<400> 55

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1				5					10					15

<210> 56
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<400> 56

Tyr	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Xaa	Cys	His	Pro	Cys
1				5					10				

<210> 57
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<220>
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<223> Xaa is 4-hydroxyproline

<400> 57

Asn Gly Xaa Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

<210> 58

<211> 13

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<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 58

Xaa Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 59

<211> 13

<212> PRT

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<400> 59

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Trp Pro Cys
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<210> 60

<211> 14

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<400> 60

Trp Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Pro Cys
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<210> 61
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<400> 62

Tyr Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys Arg Ala Cys
 1 5 10

<210> 63
<211> 13
<212> PRT
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<220>
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<400> 63

Asn Asp Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 64
<211> 14
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<400> 64

Trp Arg Gly Leu Cys Cys Gly Tyr Lys Leu Cys Arg Gly Cys
1 5 10

<210> 65
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<223> Xaa is O-methyl-L-tyrosine

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<400> 65

Xaa Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys Tyr
1 5 10

<210> 66
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 <223> Xaa is 4-hydroxyproline

<400> 66

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1				5					10			

<210> 67
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<400> 67

Xaa	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
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<210> 68
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<400> 68

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Xaa Cys
 1 5 10

<210> 69
 <211> 14
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<400> 69

Trp Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Ala Cys
 1 5 10

<210> 70
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 1 5 10 15

<210> 71
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<400> 71

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Trp Xaa Cys
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<210> 72
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<400> 72

Trp Asn Gly Leu Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 73
<211> 13
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<400> 73

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1				5					10			

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<400> 74

Asn	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Xaa	Cys
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<400> 75

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
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<210> 76

<211> 13

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<223> Xaa is L-homoleucine

<400> 76

Xaa Gly Val Cys Cys Gly Tyr Lys Xaa Cys His Pro Cys
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<210> 77

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<223> Xaa is 4-hydroxyproline

<400> 77

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 78
<211> 14
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<400> 78

Trp Arg Gly Leu Cys Cys Gly Tyr Lys Leu Cys Arg Ala Cys
1 5 10

<210> 79
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<400> 79

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 80
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<400> 80

Asn Gly Xaa Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
 1 5 10

<210> 81
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<400> 81

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Ala Cys
 1 5 10

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<400> 82

Trp Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 83
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<400> 83

Phe Gly Gly Phe Cys Cys Gly Xaa Lys Leu Cys Arg Ala Cys
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<210> 84

<211> 14

<212> PRT

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Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Pro Cys
1 5 10

<210> 85

<211> 14

<212> PRT

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<400> 85

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<400> 86

Tyr Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
1 5 10

<210> 87

<211> 13

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<400> 88

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 89
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1 5 10

<210> 90
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 1 5 10

<210> 91
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 Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Trp Pro Cys
 1 5 10

<210> 92
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 1 5 10

<210> 93
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<400> 93
 Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 94
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<400> 94

Tyr Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys Pro Cys
1 5 10

<210> 95
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<400> 95

Trp Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 96
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<220>
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<400> 96

Xaa Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 97
<211> 13
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<220>
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<400> 97

Asn Gly Leu Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 98
<211> 13
<212> PRT
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<220>
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<400> 98

Arg Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 99
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<223> Cyclic peptide residue 1 is joined to residue 13

<400> 99

Gly Tyr Lys Leu Gly Cys Cys Gly Tyr Lys Leu Cys Cys
1 5 10

<210> 100
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<400> 100

Trp	Ala	Ala	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10					15	

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<400> 101

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 <222> (12)..(12)

<223> Xaa is L-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

<400> 102

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 103

<211> 13

<212> PRT

<213> Artificial Sequence

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<223> Xaa is D-arginine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 103

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1 5 10

<210> 104

<211> 14

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<400> 104

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 105

<211> 17

<212> PRT

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<220>

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<400> 105

Gly Ile Leu Arg Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro
1 5 10 15

Cys

<210> 106

<211> 15

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<222> (14)..(14)

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<400> 106

Trp Ala Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10 15

<210> 107

<211> 13

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<400> 107

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys

1

5

10

<210> 108
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<223> Xaa is L-ornithine

<400> 108

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 109
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<223> ACETYLATION

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<222> (2)..(2)
<223> Xaa can be any naturally occurring amino acid

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<222> (3)..(3)
<223> Xaa is L-beta-homolysine

<220>
<221> misc_feature
<222> (13)..(13)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (14)..(14)

<223> Xaa is 4-hydroxyproline

<400> 109

Trp Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 110

<211> 14

<212> PRT

<213> Artificial Sequence

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<223> synthetic

<400> 110

Tyr Asn Lys Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 111

<211> 13

<212> PRT

<213> Artificial Sequence

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<222> (1)..(1)

<223> Xaa is L-beta-homolysine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is L-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

<400> 111

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 112

<211> 13

<212> PRT

<213> Artificial Sequence

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<222> (3)..(3)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 112

Asn Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 113

<211> 13

<212> PRT

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<220>

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<222> (7)..(7)

<223> Xaa is O-methyl-L-tyrosine

<400> 113

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
1 5 10

<210> 114

<211> 13

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<222> (1)..(1)

<223> ACETYLTATION

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<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-beta-homolysine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 114

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 115
<211> 13
<212> PRT
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<220>
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<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 115

Asn Gly Leu Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 116
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 116

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 117
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 117

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Lys Cys
1 5 10

<210> 118
<211> 14
<212> PRT
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<220>
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<400> 118

Tyr Asn Arg Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 119

<211> 13

<212> PRT

<213> Artificial Sequence

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<220>

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<222> (1)..(1)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 119

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 120

<211> 14

<212> PRT

<213> Artificial Sequence

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<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is benzoyl

<400> 120

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 121

<211> 13

<212> PRT

<213> Artificial Sequence

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<220>
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<222> (1)..(1)
<223> Xaa is D-lysine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 121

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 122
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 122

Asn Lys Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 123
<211> 13
<212> PRT
<213> Artificial Sequence

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<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
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<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 123

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 124
<211> 13

<212> PRT
<213> Artificial Sequence

<220>
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<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa can be any naturally occurring amino acid

<400> 124

Asn Ala Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 125
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 125

Asn Gly Ile Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 126
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<222> (9)..(9)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 126

Asn Gly Val Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

<210> 127
<211> 13

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-Lysine (dimethyl)

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline)

<400> 127

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 128
<211> 13
<212> PRT
<213> Artificial Sequence

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<220>
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<222> (1)..(1)
<223> Xaa is D-asparagine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 128

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 129
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE

<222> (12)..(12)
 <223> Xaa is L-Pipecolic acid (homo proline)

 <400> 129

 Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 130
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
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 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 130

 Ala Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 131
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is naphthyl

<400> 131

 Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 132
 <211> 14
 <212> PRT
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<220>
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<220>

<221> misc_feature
 <222> (3)..(3)
 <223> Xaa can be any naturally occurring amino acid

 <400> 132

Tyr Asn Xaa Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 133
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 133

Phe Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 134
 <211> 13
 <212> PRT
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<220>
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 <221> MISC_FEATURE
 <222> (11)..(11)
 <223> Xaa is N-Naphthylalanine

<400> 134

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
 1 5 10

<210> 135
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 135

Thr	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 136
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
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 <222> (1)..(1)
 <223> Xaa is 2-aminobenzoyl (anthraniloyl)

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 136

Xaa	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 137
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
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 <222> (1)..(1)
 <223> Xaa is naphthyl

<400> 137

Xaa	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Pro	Cys
1				5					10			

<210> 138
 <211> 13
 <212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 138

Asn Gly Thr Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 139

<211> 13

<212> PRT

<213> Artificial Sequence

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<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-Citrulline

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 139

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 140

<211> 14

<212> PRT

<213> Artificial Sequence

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<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

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<222> (8)..(8)

<220>

<221> misc_feature

<222> (8)..(8)

<223> Xaa can be any naturally occurring amino acid

<220>
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 <222> (13)..(13)
 <223> Xaa is 4-hydroxyproline

 <400> 140

 Xaa Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
 1 5 10

<210> 141
 <211> 13
 <212> PRT
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<220>
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 <222> (12)..(12)
 <223> Xaa is O-methyl-L-tyrosine

 <400> 141

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 142
 <211> 13
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 <222> (1)..(1)
 <223> Xaa is L-pyroglutamic acid

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 142

 Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 143
 <211> 13
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<222> (1)..(1)

<223> ACETYLATION

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<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 143

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 144

<211> 13

<212> PRT

<213> Artificial Sequence

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<223> synthetic

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<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is D-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 144

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 145

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 145

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Ala Cys
1 5 10

<210> 146
<211> 13
<212> PRT
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<220>
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<400> 146

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 147
<211> 13
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<220>
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<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 147

Asp Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 148
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 148

Val Cys Cys Gly Tyr Lys Leu Cys Cys
1 5

<210> 149
<211> 13
<212> PRT
<213> Artificial Sequence

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<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is L-dimethyldopa or L-dimethoxyphenylalanine

<400> 149

Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 150
 <211> 13
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 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 150

Asn	Gly	Ala	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 151
 <211> 13
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 <213> Artificial Sequence

<220>
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<400> 151

Asp	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Pro	Cys
1				5					10			

<210> 152
 <211> 13
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 <222> (1)..(1)
 <223> ACETYLATION

<400> 152

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 153

<211> 13

<212> PRT

<213> Artificial Sequence

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<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 153

Asn Gly Ala Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 154

<211> 13

<212> PRT

<213> Artificial Sequence

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<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 154

Xaa Asp Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 155

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 155

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Phe Cys
1 5 10

<210> 156

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 156

Asn Ser Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 157

<211> 14

<212> PRT

<213> Artificial Sequence

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<220>

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<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 157

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 158

<211> 13

<212> PRT

<213> Artificial Sequence

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<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is L-thiazolidine-4-carboxylic acid

<400> 158

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 159

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 159

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Glu Cys
1 5 10

<210> 160

<211> 13

<212> PRT

<213> Artificial Sequence

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<220>

<221> misc_feature

<222> (3)..(3)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 160

Asn Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 161

<211> 14

<212> PRT

<213> Artificial Sequence

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<222> (1)..(1)

<223> ACETYLTATION

<400> 161

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 162

<211> 13

<212> PRT

<213> Artificial Sequence

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<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is L-norleucine

<400> 162

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 163

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 163

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Gln Pro Cys
1 5 10

<210> 164

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

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<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is D-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 164

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 165

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 165

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Tyr Cys
1 5 10

<210> 166

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa is D-lysine

<400> 166

Asn Gly Val Cys Cys Xaa Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 167

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is L-Lysine (dimethyl)

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 167

Asn Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Xaa Cys
1 5 10

<210> 168

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa is L-homotyrosine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 168

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 169

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (11)..(11)

<223> Xaa is L-3-pyridylalanine

<400> 169

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
1 5 10

<210> 170

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 170

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Lys Pro Cys
1 5 10

<210> 171

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 171

Tyr Asn Gly Val Cys Cys Gly Leu Lys Leu Cys His Pro Cys
1 5 10

<210> 172

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 172

Asn Gly Val Cys Cys Gly Tyr Ala Leu Cys His Pro Cys
1 5 10

<210> 173

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (9)..(9)

<223> Xaa is 4-hydroxyproline

<400> 173

Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 174

<211> 14

<212> PRT

<213> Artificial Sequence

<220>
 <223> synthetic

 <400> 174

 Tyr Asn Gly Val Cys Cys Gly Tyr Leu Leu Cys His Pro Cys
 1 5 10

<210> 175
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

 <400> 175

 Tyr Asn Gly Val Cys Cys Gly Tyr Lys Asn Cys His Pro Cys
 1 5 10

<210> 176
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa is L-2-furylalanine

<400> 176

 Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
 1 5 10

<210> 177
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 177

Asn Gly Val Cys Cys Gly Tyr Arg Leu Cys His Xaa Cys
 1 5 10

<210> 178
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (11)..(11)
 <223> L-histidine(benzyloxymethyl)

<400> 178

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
 1 5 10

<210> 179
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 179

Tyr Asn Gly Val Cys Cys Gly Tyr Phe Leu Cys His Pro Cys
 1 5 10

<210> 180
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (11)..(11)
 <223> Xaa is L-histidine(3-methyl)

<400> 180

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
 1 5 10

<210> 181

<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 181

Asn Gly Val Cys Cys Gly Tyr His Leu Cys His Pro Cys
1 5 10

<210> 182
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<222> (1)..(1)
<223> Xaa is L-pyroglutamic acid

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<222> (8)..(8)
<223> Xaa is L-norleucine

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<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 182

Xaa Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Xaa Cys
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<222> (6)..(6)
<223> Xaa is D-glutamic acid

<400> 183

Asn Gly Val Cys Cys Glu Tyr Lys Leu Cys His Pro Cys
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<400> 184

Tyr Asn Gly Val Cys Cys Gly Asn Lys Leu Cys His Pro Cys
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 <223> Xaa is L-norleucine

<400> 185

Asn Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Pro Cys
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<400> 186

Asn Gly Val Cys Cys Ser Tyr Lys Leu Cys His Pro Cys
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<400> 187

Xaa Gly Val Cys Cys Gly Trp Lys Leu Cys His Xaa Cys
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<223> Xaa is 4-hydroxyproline

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Xaa Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Xaa Cys
1 5 10

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<222> (7)..(7)

<223> Xaa is L-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

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Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
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<223> Xaa is D-phenylalanine

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<222> (11)..(11)
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<400> 193

Gly Ile Cys Cys Gly Val Ser Phe Cys Tyr Xaa Cys
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<400> 194

Asn Gly Val Cys Cys Gly Tyr Gln Leu Cys His Pro Cys
1 5 10

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<400> 195

Tyr Asn Gly Val Cys Cys Gly Glu Lys Leu Cys His Pro Cys
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<400> 196

Asn Gly Val Cys Cys Gly Tyr Lys Lys Cys His Pro Cys
1 5 10

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<223> Xaa is L-pyroglutamic acid

<220>
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<223> Xaa is 4-hydroxyproline

<400> 197

Xaa Gly Val Cys Cys Gly Glu Lys Leu Cys His Xaa Cys
1 5 10

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<400> 198

Xaa Gly Val Cys Cys Gly Ile Lys Leu Cys His Xaa Cys
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<400> 199

Arg Asn Cys Cys Arg Leu Gln Val Cys Cys Gly
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<400> 200

Val Gly Val Asp Asp Gly Tyr Lys Leu Cys His Xaa Cys
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<210> 201
 <211> 14
 <212> PRT
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<220>
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<400> 201

Tyr Asn Gly Val Cys Cys Gly Lys Lys Leu Cys His Pro Cys
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<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 202

Asn Gly Val Cys Cys Gly Tyr Lys Ala Cys His Xaa Cys
1 5 10

<210> 203
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<223> Xaa is 4-hydroxyproline

<400> 203

Asn Gly Val Cys Cys Gly Tyr Ala Leu Cys His Xaa Cys
1 5 10

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<223> Xaa is 4-hydroxyproline

<400> 204

Asn Gly Val Cys Cys Gly Ala Lys Leu Cys His Xaa Cys
1 5 10

<210> 205
<211> 13
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<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 205

Asn Gly Val Cys Cys Ala Tyr Lys Leu Cys His Xaa Cys
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<210> 206

<211> 13

<212> PRT

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<223> synthetic

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa is L-dimethyldopa or L-dimethoxyphenylalanine

<400> 206

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
1 5 10

<210> 207

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 207

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Pro Cys
1 5 10

<210> 208

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 208

Tyr Asn Gly Val Cys Cys Gly Tyr Ile Leu Cys His Pro Cys

1 5 10

<210> 209
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<212> PRT
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<220>
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<400> 209

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Asp Cys His Pro Cys
1 5 10

<210> 210
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<220>
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<400> 210

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Glu Pro Cys
1 5 10

<210> 211
<211> 14
<212> PRT
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<220>
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<400> 211

Tyr Asn Gly Val Cys Cys Gly Tyr Trp Leu Cys His Pro Cys
1 5 10

<210> 212
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<400> 212

Tyr Asn Gly Val Cys Cys Gly Tyr Tyr Leu Cys His Pro Cys
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<223> Xaa is L-dimethyldopa or L-dimethoxyphenylalanine

<220>
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<223> Xaa is 4-hydroxyproline

<400> 213

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 214
<211> 13
<212> PRT
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<223> Xaa is L-Diphenylalanine

<220>
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<223> Xaa is 4-hydroxyproline

<400> 214

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 215
<211> 13
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<220>
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 <222> (7)..(7)
 <223> Xaa is L-Lysine (dimethyl)

<220>
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 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 215

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1				5					10			